

Title (en)
SYSTEM FOR CLOSED LOOP POWER CONTROL USING A LINEAR OR A NON-LINEAR POWER AMPLIFIER

Title (de)
SYSTEM ZUR LEISTUNGSREGELUNG EINES GESCHLOSSENEN REGELKREISES MIT EINEM LINEAREN ODER NICHTLINEAREN LEISTUNGSVERSTÄRKER

Title (fr)
SYSTEME POUR LA REGULATION DE PUISSANCE D'UNE BOUCLE FERMEE A L'AIDE D'UN AMPLIFICATEUR DE PUISSANCE LINEAIRE OU NON LINEAIRE

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Abstract (en)

[origin: WO0219545A2] A system for a closed power control feedback loop (200) allows for the use of a non-linear amplifier for amplifying a phase modulated (PM) signal while introducing an inverse version of the desired amplitude modulation (AM) signal into the feedback loop using a variable gain element (Fig. 2, block 212). By introducing an inverse version of the desired (AM) portion of the signal into the power control feedback loop, the non-linear, and highly efficient, power amplifier may be used to amplify only the (PM) portion of the signal, while the (AM) portion is introduced by the power control feedback loop (200). In another aspect of the invention, an inverse version of the (AM) portion of the desired transmit signal is introduced into the power control feedback loop of an amplifier that is amplifying both a phase modulated signal and an amplitude modulated signal. By introducing an inverse version of the desired (AM) signal into the power control feedback loop, the power control feedback loop may not cancel the (AM) component present at the output of the power amplifier. In yet another aspect of the invention, the desired (AM) signal is injected into the feedback loop with the power control reference signal.

[origin: WO0219545A2] A system for a closed power control feedback loop allows for the use of a non-linear amplifier for amplifying a phase modulated (PM) signal while introducing an inverse version of the desired amplitude modulated (AM) signal into the feedback loop using a variable gain element. By introducing an inverse version of the desired AM portion of the signal into the power control feedback loop, the non-linear, and highly efficient, power amplifier may be used to amplify only the PM portion of the signal, while the AM portion is introduced by the power control feedback loop. In another aspect of the invention, an inverse version of the AM portion of the desired transmit signal is introduced into the power control feedback loop of an amplifier that is amplifying both a phase modulated signal and an amplitude modulated signal. By introducing an inverse version of the desired AM signal into the power control feedback loop, the power control feedback loop may not cancel the AM component present at the output of the power amplifier. In yet another aspect of the invention, the desired AM signal is injected into the feedback loop along with the power control reference signal.

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